



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR ARMAMENT CENTER (AFMC)
EGLIN AIR FORCE BASE, FLORIDA

September 10, 2001

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Federal Facilities Branch
61 Forsyth Street
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Mr. Greg Brown, P.E.
Florida DEP
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: *Land Use Implementation Plan, Revision 1*
IRP Site No. OT-265 Cattle Dipping Vat – Owl's Head Branch

Dear Sirs:

Enclosed please find Revision 1 of the *Land Use Implementation Plan Installation Restoration Program (IRP) Site No. OT-265 Cattle Dipping Vat – Owl's Head Branch*, Eglin Air Force Base, Florida, dated September 10, 2001.

If you have any questions regarding this work plan, please contact Ms. Maria Rodriguez, Restoration Project Manager at (850) 882-7791 ext. 214.

Sincerely

A handwritten signature in dark ink, reading "Thomas M. Churan", with a long horizontal flourish extending to the right.

THOMAS CHURAN, GM-13
Chief, Environmental Restoration

Attachments:
LUCIP, Revision 1
Distribution List

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DRAFT LAND USE CONTROLS IMPLEMENTATION PLAN
IRP SITE NO. OT-265 CATTLE DIPPING VAT—OWL'S HEAD BRANCH
EGLIN AIR FORCE BASE, FLORIDA

SITE LOCATION

Eglin Air Force Base, Florida (Eglin) is located within the Eglin Military Reservation in the Florida Panhandle. Installation Restoration Program (IRP) Site No. OT-265 Cattle Dipping Vat – Owl's Head Branch is located in Walton County, Florida, approximately four miles north of the city of Freeport (Figures 1 and 2). The site is situated along the eastern perimeter, in the southern part of the of the Eglin Reservation. The approximate geographic coordinates of the site are 30° 33' 15'' latitude and 86° 06' 41'' longitude.

SITE DESCRIPTION

IRP Site No. OT-265 encompasses an approximately 0.2-acre area. It is located in a remote, wooded setting and is used infrequently by recreators and workers. The site has no fence or other barriers restricting access. The cattle dipping vat is located west of U.S. 331, beyond a power line right of way and approximately 75 feet beyond a tree line located just south of a marshy area associated with Owl's Head Branch (Figure 3). Recreators and Eglin workers may infrequently pass along this road, but do not consistently perform any work (for example, mowing grass) at the site itself. The current land use at IRP Site No. OT-265 is nonresidential.

IRP Site No. OT-265 occupies an area at the top of a steep northward-facing slope leading to Owl's Head Branch, which is located about 200 feet north of the site. Owl's Head Branch joins East Branch Fourmile Creek approximately 0.3 miles to the west. Magnolia Creek and Lafayette Creek are located 1.1 miles to the east and 2 miles south of the site, respectively. The ground surface at the site slopes gently to the north. Presently, the site is moderately wooded with pine trees and scrub oaks. Ground cover consists of grasses and saplings. Site surface soils are loose and sandy with moderate organic matter content from degrading plants. No significant erosion features have been observed near the site.

The surficial aquifer beneath the site extends to an approximate depth of 50 feet below land surface (bls) (Hayes and Barr, 1983). The Pensacola Clay, an aquiclude which separates the surficial aquifer from the underlying Floridan aquifer system, is approximately 90 feet thick and extends to a depth of approximately 140 feet bls (Hayes and Barr, 1983; Maslia and Hayes, 1988). The surficial aquifer occurs under water table conditions. The depth to groundwater is approximately 22 to 26 feet bls. The groundwater flow directions within the surficial aquifer have a northern component toward Owl's Head Branch, which is located approximately 200 feet from the site.

IRP Site No. OT-265 currently consists of the cattle dipping vat and the immediately surrounding area (Figure 4). The cattle dipping vat at IRP Site No. OT-265 was constructed in 1926 (as determined by markings on the vat) and is presently in good condition. The vat and drip pad exhibits very minor cracking. Due to the good condition of the vat, it was left in place during the ICM activities. The vat structure is constructed of concrete, and is approximately 25 feet long by 3 feet wide and approximately 4 to 5 feet deep.

Land Use Controls Objective

The ICM Report was submitted in December 1999 (Earth Tech, December 1999). On the basis of this work, Eglin recommends No Further Investigative Action with Land Use Controls (LUCs) for site surface and subsurface soils and No Further Investigative Action for site groundwater as the remedy at IRP Site No. OT-265.

To remain protective of human health and the environment, current and future use of the property will be limited, and no residential or other development of the property will be allowed without the proper engineering controls. The area affected by the residential restrictions is illustrated in Figure 4. Depending on the location, nature, and intensity of potential future land use activities, the Air Force shall conduct additional site investigation and assessment activities to determine the proper engineering controls if existing information is inadequate. In addition, LUCs will be implemented within the boundaries of this site, to ensure that surface and subsurface soils are not disturbed. The area affected by these land use restrictions is illustrated in Figure 4. This Land Use Controls Implementation Plan (LUCIP), once approved by the Environmental Protection Agency (EPA), and the ICM Work Plan, submitted prior to the ICM excavation activities, (REI, December 1998) will also serve as the Corrective Measures Implementation Plan (CMIP), as required to implement a remedy, pursuant to the Resource Conservation and Recovery Act (RCRA).

The following section outlines the proposed LUC implementation.

LUC Implementation to Achieve Objective

By separate Memorandum of Agreement (MOA) dated December 23, 1999, with EPA and the Florida Department of Environmental Protection (FDEP), Eglin, on behalf of the Department of the Air Force, agreed to implement basewide, certain periodic site inspection, condition certification and agency notification procedures designed to ensure the maintenance by Installation personnel of any site-specific LUCs deemed necessary for future protection of human health and the environment.

The Environmental Management Restoration (EMR) Division Chief will be responsible for implementing and maintaining the LUCs, and this LUCIP will be referenced in appropriate Eglin basewide planning documents. Section 4 of the *Land Use Controls Implementation Manual* describes implementation and maintenance procedures in detail.

For Eglin IRP Site No. OT-265 Cattle Dipping Vat—Owl's Head Branch, the remedy is LUCs for surface and subsurface soils, which consists of the following land use restrictions:

- The property is restricted from residential development, without proper engineering controls (Figure 1 and Section 4.1.2 of the *Land Use Controls Implementation Manual* [CH2MHill, 2001]). The implementing agency will have the opportunity to review and comment on the proposed engineering controls.
- The property will be inspected annually to ensure that unauthorized use of the property does not occur and that the status of the property is unchanged (Section 4.3.1.1 of the *Land Use Controls Implementation Manual* [CH2MHill, 2001]). The IRP Site No. OT-265 Land Use Controls Annual Inspection Checklist is included as Attachment A.

- No digging will be allowed within the area of IRP Site No. OT-265 (Figure 4) without an Air Armament Center (AAC)/EMR and Eglin Bioenvironmental Engineering approved safety and health plan.
- Signs will be posted at the site and will present applicable restrictions with a minimum of two-inch block lettering, in English, made with reflective material (Section 4.2.1.3 of the *Land Use Controls Implementation Manual* [CH2MHill, 2001]). Signs will have a point of contact, phone number, and have the IRP site number displayed as a reference number for any inquires on the site and its restrictions. The restricted media (surface and subsurface soils) will be stated on the signs. Universal restriction symbols may be utilized. The specific risk will be posted and a statement such as "Removal of this sign can only be authorized through coordination with the point of contact posted" will be included.
- The Air Force will notify the implementing agency upon the discovery of any unauthorized change in land use (Section 4.3.1.2 of the *Land Use Controls Implementation Manual* [CH2MHill, 2001]).
- Annual reporting of the site status is required. The annual report will be submitted by July 1 of each year.
- Every five years, Eglin will prepare a review of the remedy effectiveness and submit the report to the implementing agency. Eglin may at any time present additional information for remedy modification, including but not limited to discontinuing the remedy.

For requests for major land use changes, written requests will be submitted to the implementing agency, in accordance with the mutually approved Land Use Control Action Plan. Requests will be submitted at least sixty days (except in emergency situations) prior to implementation of any major change in land usage.

These LUCs will be documented in the Eglin Basewide Comprehensive Plan on an annual basis (Section 4.3.2 of the *Land Use Controls Implementation Manual*).

Annual Reporting

The annual report for combined LUCIP sites will consist of a one-page cover letter signed and approved by the Installation Commander. The report will state that all sites are being monitored and maintained in accordance with the Memorandum of Agreement signed by the Florida Department of Environmental Protection, the United States Environmental Protection Agency and representatives of the United States Air Force. An attachment to the letter will list sites inspected with the date of the inspection and any discrepancies and corrective actions implemented. The letter report will be submitted by July 1 of each year.

Recurrent Review of Land Use Controls

The five-year review of LUCs will be conducted to determine if it is appropriate to amend or remove the LUCs. At each review interval, the EMR representative will determine if site conditions warrant LUC removal or amendment consideration. If so, requirements for investigation and assessment activities will be based on a Human Health Risk Assessment (HHRA) and will be pre-approved by the designated

responsible entity. If the review indicates the LUCs should be amended or removed, a Revalidation Report will be submitted for EPA and FDEP review.

Decision Documents

The Statement of Basis (SB) dated June 2001 recommended No Further Investigative Action with LUCs. The SB was open for public comment period from June 15, 2001 to July 31, 2001. No comments were received during the specified comment period.

REFERENCES

- CH2MHill, *Installation Restoration Program Final Land Use Controls Implementation Manual*, Eglin Air Force Base, Florida, September 2001.
- Earth Tech, *RCRA Facility Investigation and Interim Corrective Measures Report, IRP Site No. OT-265 Cattle Dipping Vat – Owl's Head Branch*, December 1999.
- Earth Tech, *Statement of Basis IRP Site No. OT-265 Cattle Dipping Vat—Owl's Head Branch*, Revision 2, Eglin Air Force Base, Florida, June 2001.
- Hayes, L.R. and Barr, D.E., *Hydrology of the Sand-and-Gravel Aquifer, Southern Okaloosa and Walton Counties, Northwest Florida*, US Geological Survey, Water Resources Investigations Report 82-4110, 1983.
- Maslia, M.L. and Hayes, L.R., *Hydrology and Simulated Effects of Ground-Water Development of the Floridan Aquifer System, Southwest Georgia, Northwest Florida and Southernmost Alabama*, US Geological Survey, Professional Paper 1403-H, 1988.
- REI, *RCRA Facility Investigation and Interim Corrective Measures Work Plan, IRP Site No. OT-265 Cattle Dipping Vat – Owl's Head Branch*, December 1998.
- U.S. Environmental Protection Agency, Memorandum to Federal Facilities Branch, *Subject: Assuring Land Use Controls at Federal Facilities*, 1998.
- Woodward-Clyde Consultants, *Cattle Dipping Vat Assessment Program, A Summary Report*, January 1995.

ATTACHMENT A

**IRP SITE NO. OT-265 LAND USE CONTROLS
ANNUAL INSPECTION CHECKLIST**

IRP SITE NO. OT-265 LAND USE CONTROLS ANNUAL INSPECTION CHECKLIST

DATE _____

DATE OF PREVIOUS INSPECTION _____

TIME _____

DATE OF NEXT PERIODIC REVIEW _____

NAME _____

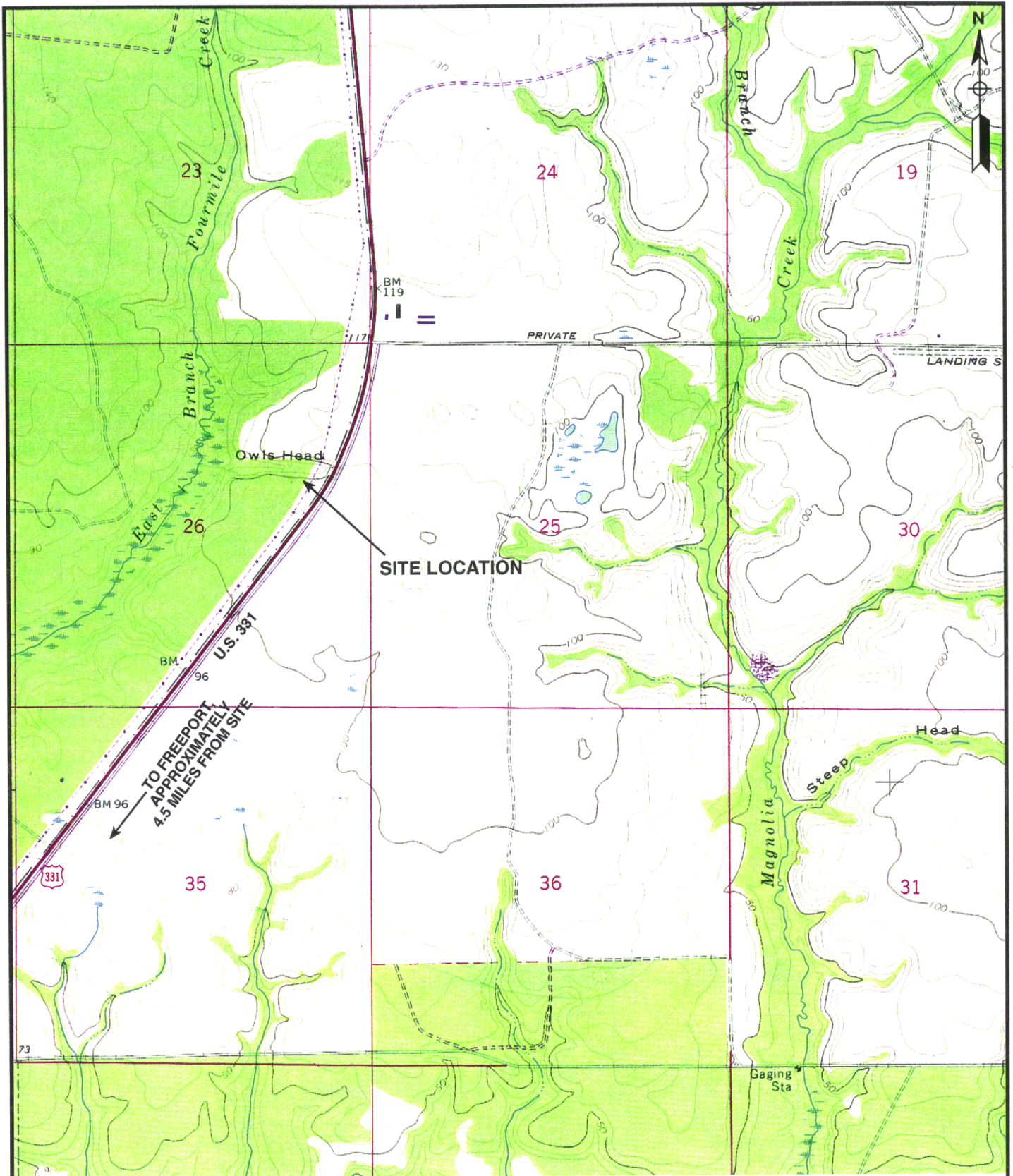
If the answer to any of the following questions deviates from the prescribed LUC, please describe and explain on the attached comment sheet.

Land Use Controls	Inspection
The property is restricted from residential development, without proper engineering controls (Figure 4 and Section 4.1.2.1 of the Land Use Controls Implementation Manual).	<p>Figure 4 depicts residential development restrictions. Has any residential development occurred within the restricted area?</p> <p>Yes No</p> <p>If the answer is yes, please describe in detail.</p>
Future development will be restricted from using the shallow aquifer under the site as a source of potable drinking water (see Figure 4 and Section 4.2.1 of the Land Use Controls Implementation Manual). The shallow aquifer is defined as the Sand and Gravel aquifer above the Pensacola Clay confining layer. Other uses of the groundwater must be approved by the implementing agency.	<p>Figure 4 depicts shallow aquifer use restrictions.</p> <p>Are domestic use wells completed into the shallow aquifer within the restricted area?</p> <p>Yes No</p> <p>Has groundwater within the restricted area been utilized?</p> <p>Yes No</p> <p>If the answer is yes to either of these questions, please describe in detail.</p>
This property will be inspected annually to ensure that unauthorized use of the property does not occur and that the status of the property is unchanged (Section 4.3.1.1 of the Land Use Controls Implementation Manual).	<p>Did any unauthorized land use changes occur in the past year?</p> <p>Yes No</p> <p>Were any major land use changes* requested, since the last inspection report?</p> <p>Yes No</p> <p>If the answer is yes to either of these questions, please describe in detail.</p>

The Air Force will notify the implementing agency upon the discovery of any unauthorized change in land use (Section 4.3.1.2 of the Land Use Controls Implementation Manual).	If any unauthorized change in land use occurred, on what date was the current regulatory authority notified?
Annual reporting of the site status is required. The annual report will be submitted by July 1 of each year.	<p>Was an annual report submitted to the current regulatory authority(ies) by July 1? Yes No</p> <p>Have all discrepancies from previous reports been addressed? Yes No</p> <p>If the answer is no to either of these questions, please describe in detail.</p>
For requests for major land use changes*, written requests will be submitted to the current regulatory authority(ies), in accordance with the mutually approved LUCAP. Requests will be submitted as soon as a major land use change is anticipated, to allow sufficient time for regulatory review and amendments to remedy selection decision documents.	<p>Have any major land use changes requested since the last inspection report? Yes No</p> <p>If the answer is yes, please describe in detail.</p>
These Land Use Controls will be documented in the Eglin Basewide Comprehensive Plan on an annual basis (Section 4.3.2 of the Land Use Controls Implementation Manual).	<p>Have the Land Use Controls been documented and distributed in accordance with Section 4.3.3 of the Land Use Controls Implementation Manual? Yes No</p> <p>If the answer is no, please provide explanation.</p>

*Major Land Use Change = Any changes in land use (e.g., from industrial or recreational to residential) that would be inconsistent with those specific exposure assumptions in the human health and/or ecological risk assessments that served as the basis for the LUCs; any site activity that may disrupt the effectiveness of the implemented LUC (for example, excavation at a landfill; groundwater pumping that may impact a groundwater pump and treat system; a construction project that may impact ecological habitat protected by the remedy; removal of a fence; unlocking of a gate, or removal of warning signs); or any site activity intended to alter or negate the need for the specific LUCs implemented at the site.

FIGURES



Scale 1:24000

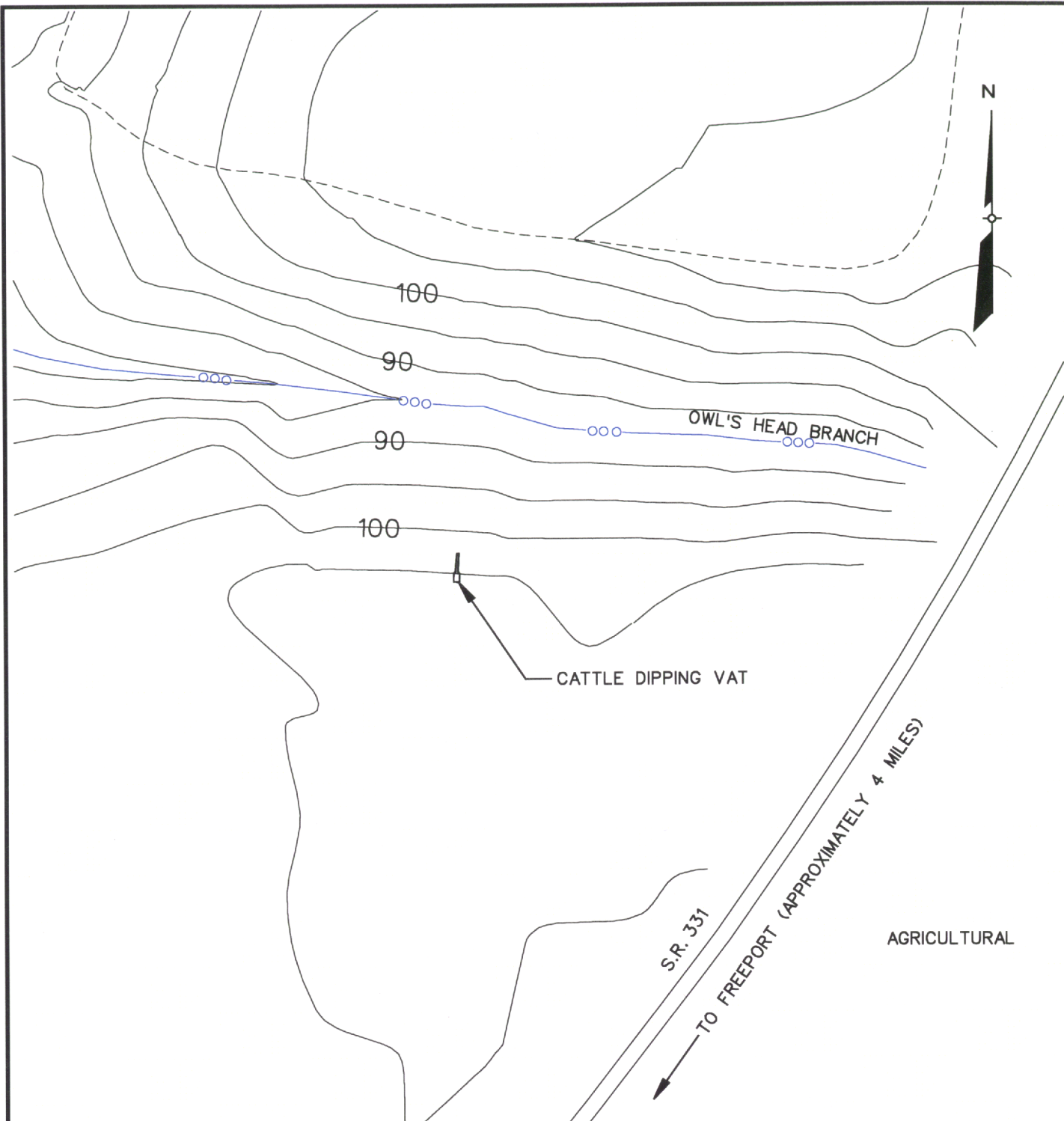
0 1000 2000 3000 4000 5000 6000 FT.

CONTOUR INTERVAL = 10 FEET

Ref.: U.S.G.S., 7.5 min Quadrangle
Rock Hill, FL. 1970, PR 1976,
PI 1984.

EARTH  TECH
A **tyco** INTERNATIONAL LTD. COMPANY

FIGURE 2
IRP SITE NO. OT-265
CATTLE DIPPING VAT - OWL'S HEAD BRANCH
SITE AND VICINITY MAP
EGLIN AIR FORCE BASE, FLORIDA
PROJECT NO. 55556.000



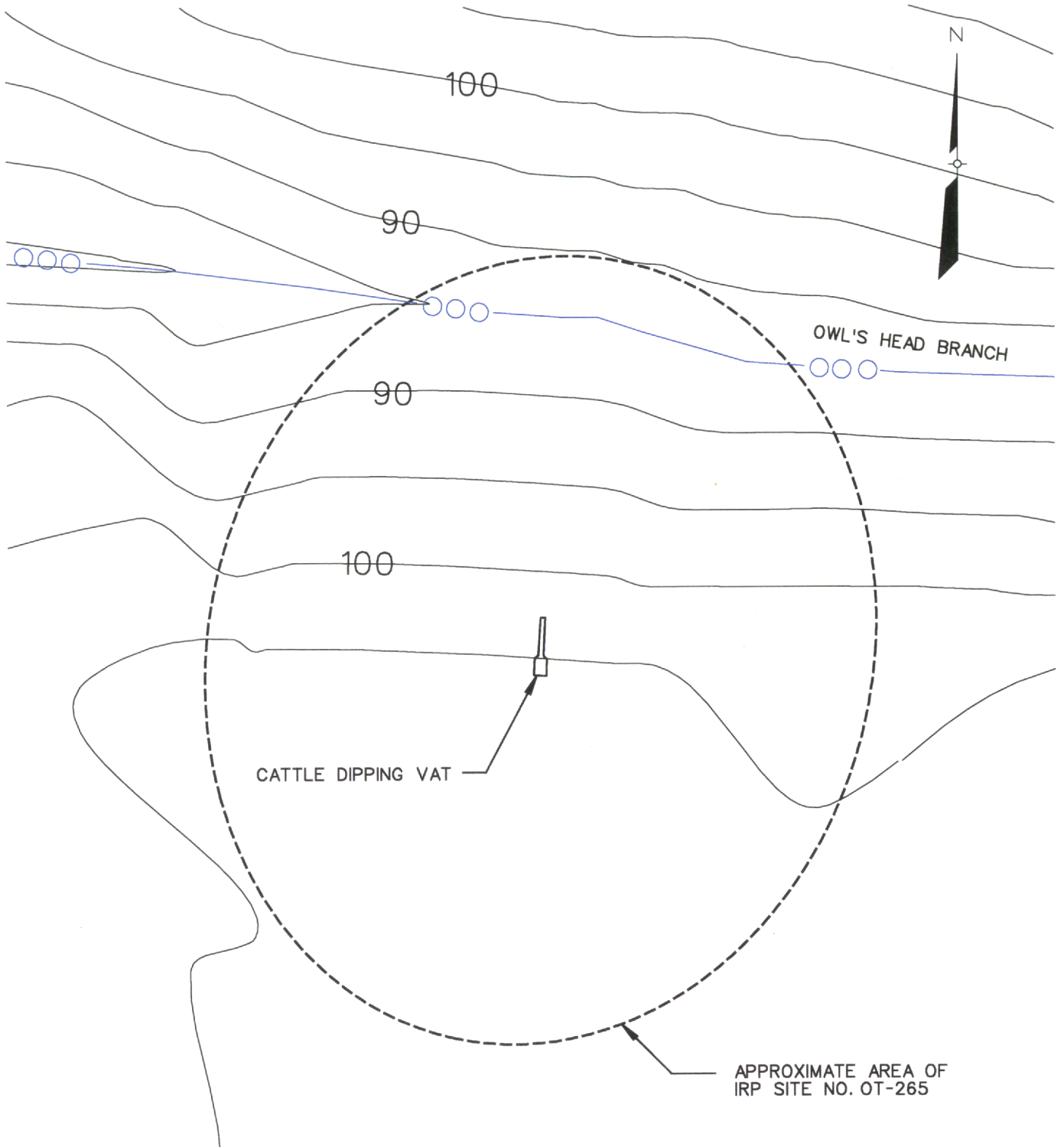
SCALE
0' 100' 200' 400'
1 INCH = 200 FEET

BASE MAP PRODUCED FROM BASE COMPREHENSIVE PLAN
MAPPING, US ARMY ENGINEERING DISTRICT, MOBILE,
AERIAL PHOTO DATE: OCTOBER, 1989.
CONTOUR INTERVAL - 5 FEET

EARTH  TECH

FIGURE 3
IRP SITE NO. OT-265
CATTLE DIPPING VAT-OWL'S HEAD BRANCH
SITE LAYOUT MAP

EGLIN AIR FORCE BASE, FLORIDA
PROJECT NO. 40532



SCALE

0' 50' 100' 200'

1 INCH = 100 FEET

BASE MAP PRODUCED FROM BASE COMPREHENSIVE PLAN
MAPPING, US ARMY ENGINEERING DISTRICT, MOBILE,
AERIAL PHOTO DATE: OCTOBER, 1989.
CONTOUR INTERVAL = 5 FEET

E A R T H  T E C H

FIGURE 4
IRP SITE NO. OT-265
CATTLE DIPPING VAT-OWL'S HEAD BRANCH
LUCIP RESTRICTIONS
EGLIN AIR FORCE BASE, FLORIDA
PROJECT NO. 40532

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